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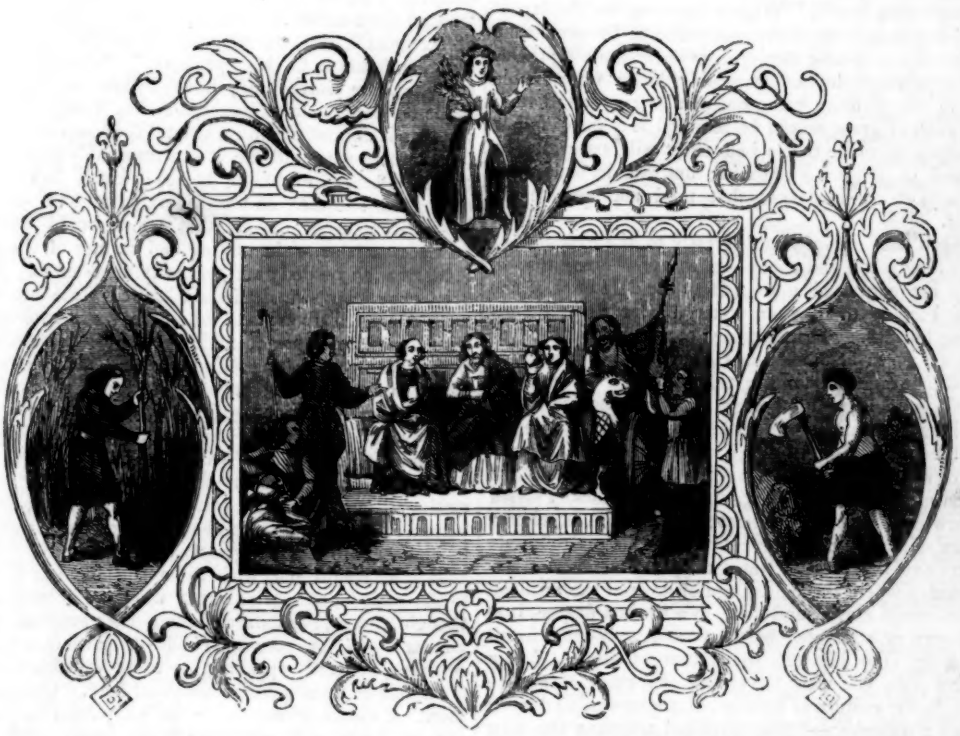

[Saxon Emblems of the Month of April.—Selected from Saxon MSS. in the British Museum.]

Of all the months in the year, that of April is not surpassed, if it be at all equalled, in respect to the deep and exciting interest it imparts to persons connected with and interested in a country life. It is in most cases the renovator of the entire system of vegetation in this and many other countries in the northern hemisphere, being the period in which nature, that has remained bound during the rigidity of winter, again bursts forth into a thousand interesting forms. It is not alone that the varied productions of the soil acknowledge the all-powerful influence of returning spring, that the pastures and meadows appear clothed in cheering green, that the hills and dales become adorned with myriads of flowers so simply beautiful, that, as the sacred volume expresses it, "Solomon in all his glory was not arrayed like one of these;" but the whole animal creation seems to be pervaded by one universal feeling of joy and delight. Hence man would indeed appear unworthy of his superior station and higher destinies were his heart callous to, and his feelings unconscious of, those genial influences that cause the innocent lambs to skip and play, and the speckled lark with joyous song to greet each rising morn.

"Sweet April showers
Do spring May flowers."*

* Tusser, 'April's Husbandry.

We remarked, that this is a season of deep and exciting interest to those engaged in a country life: it is so, because the farmer, having committed his crops to the bosom of the earth, now anxiously watches and beholds the tender blades bursting forth; and according to the indications and appearances thus early given, he already begins to augur, favourably or unfavourably, of the ultimate results of the harvest-field, the stack-yard, and the granary. That he is always able to draw correct conclusions from observations thus early made, is neither supposed nor pretended; for through the succeeding months that his crops have to remain on the ground before they are fit for the sickle, favourable or unfavourable circumstances may intervene which will absolutely determine the fate of the crops, whether for abundance or scarcity, and whether the quality shall be bad or good. But the crops of grain committed to the earth during the past autumn are at this season more particularly the objects of the farmer's anxious observations: winter, the influence of which is always to be more or less dreaded and apprehended, having passed away, he carefully marks appearances and watches the effects produced upon his fields of winter grain by a few days or weeks of bright sunshine, accompanied by congenial April showers:—

"The work is done, no more to man is given,
The grateful farmer trusts the rest to Heaven.

Yet oft with anxious heart he looks around,
And marks the first green blade that breaks the ground;
In fancy sees his trembling oats uprun,
His tufted barley yellow with the sun;
Sees clouds propitious shed their timely store,
And all his harvest gathered round his door."*

Nor are the farmer's hopes and fears by any means confined to the crops already in the ground, since a portion of his fields are now undergoing preparations for the reception of late crops, particularly potatoes and turnips. His interests too are affected by the return of spring, for on the duration or continuance of winter commonly depends the period that it is necessary to feed the stock in the farm-yard; and every farmer is aware of the bad effect that a "Winter lingering in the lap of May" has upon both sheep and cattle, at the same time considerably increasing the expenses of maintaining them. But late springs do not invariably bring unprofitable years to the farming community at large; and though the growth of grass should be retarded, it does not follow as a matter of course that a bad effect will naturally be produced on the crops of grain; but this depends upon a variety of circumstances that need not here be explained.

Though late springs add greatly to the expenses of maintaining cattle and sheep—as regards horses, that is, such as are employed upon farms, the difference of the cost of keeping them is not material; for though most working horses may be maintained at a somewhat cheaper rate upon green food, such as clover, lucerne, vetches, or tares, &c. during the summer, than they can be upon dry food—oats, chaff, and cut straw, or even good hay—still the difference is not so very striking. So long ago as the date of Young's 'Tours through various parts of England,' in several districts where agriculture had made the greatest advances under what was then technically styled the new system of husbandry, the culture of clover, lucerne, sainfoin, &c. had been advantageously introduced; yet, even at the present time, there are extensive tracts of country where the cultivation of none of the artificial grasses except clover, and that in a limited degree, is at all known or attempted by the farmers. Young, in his 'Farming Tour through the Eastern Counties,' brings together into one view the results of a mass of experiments on the culture of lucerne, and afterwards adds the following remarks:—"The principal article in this table is the average of the number of horses and the time they are kept, which I have carefully calculated, and find the proportion to be four horses maintained 22¾ weeks on each acre. This is a fact of true importance; and independent of the propriety of weekly charges or general valuations, which are never equally satisfactory. Here we find that on an average of these numerous crops of lucerne, one acre will maintain four horses, soiled in the stable, from the middle of May to the end of October. I need not remark that this product is prodigiously great, and forms an object in modern husbandry of the first magnitude. But that this subject may be as thoroughly understood as possible, I beg leave to observe that here are two circumstances united which ought to be somewhat distinguished, though difficult; it is, the product of the lucerne, and the practice of soiling horses in the stable. Is the vast benefit here apparent all to be attributed to one or the other, or part to one and part to the other, and in what degree?"

Here the writer breaks off without answering those queries, which he acknowledges he cannot satisfactorily answer; but he refers us to another of his Tours, from which we make the following extract, previously noticing that this experiment was made upon a piece of ground containing 1 rood 11 perches:—"Cut twice the first year. The first (cutting) maintained four coach-horses and five calves six weeks; the second kept seven horses a month." The next year the same piece of ground "was cut three times, and maintained seven horses from the middle of May to the end of September." The following year, he says, "it maintained six horses the same time. It saved 12*s*. 10*d*. a week in hay for these six horses; the proportion for the last seven years is therefore 14*s*. 11*d*., and the average 13*s*. 10½*d*. The product, therefore, of (the average of) these two years is this—twenty weeks at 13*s*. 10½*d*. is 13*l*. 17*s*. 6*d*. This per acre is 43*l*. 8*s*. 11*d*. This is a prodigious product, and I think much higher than the culture was ever before carried to." The same writer introduces another experiment upon the cultivation of lucerne, but made in a different part of the country. "An acre," says he, "lasted three horses at soiling the summer through; this, at six months the summer, and at 2*s*. 6*d*. a week per horse, amounts to 9*l*. 15*s*. per acre." In neither of the extracts here introduced, however, are any deductions made for the various expenses attending a crop of lucerne, whereas it annually requires several dressings or weedings before those who cultivate it can reasonably expect good crops. Besides, in soiling horses or cattle in the stable during the summer, no inconsiderable amount of extra labour is incurred beyond that which would otherwise be necessary, since the cutting and carting of the green fodder has to be daily and regularly attended to. Moreover, experiments made upon a limited scale are rarely to be depended upon; and where they are entered into with the express view of making the very most of them, the results should be entertained with considerable caution. There can be no doubt, however, that upon rich and deep soils, and such lucerne requires, this species of grass may be grown advantageously upon farms where soiling is a desirable object; since from its rapid growth after vegetation commences in the spring, as well as after cutting, it generally yields an abundant crop during the summer; besides, both cattle and horses thrive well upon it, and seem to relish it greatly.

But we would not wish to be considered as dictating to the experienced agriculturist when we observe that—though lucerne, sainfoin, and some other artificial grasses answer a good purpose upon soils of particular qualities—clover, generally speaking, is more valuable than any other sort of grass usually cultivated here. One peculiar merit of clover seems to be its adaptation to soils of various kinds and qualities; while many of the other grasses require a peculiar sort of soil to ensure their success. Like lucerne it is well adapted to the summer soiling of cattle or horses; and where it is submitted to the scythe it commonly yields two tolerably good crops of hay, and afterwards good pasturage until the plants are cut down by the frosts, of which it is somewhat susceptible. We will here introduce an experiment or two made upon clover, quoting again from Young's 'Tours:'—"The use of it (clover) in many parts of the kingdom is so great, as to be one of the pillars of good husbandry." Again,—"This grass is so truly serviceable to the farmer, that a clear knowledge of its product and value are [is] the only means of spreading the culture, and of improving it where known." He further adds,—"The importance of a grass that is of so hardy a nature as to bear sowing with corn, and subject to scarcely any failures—that will the very first year yield 3 tons 4 cwt. of hay at two mowings—that will last one, or perhaps two years longer, if it suits the farmer—that is for wheat a better preparation than the finest fallow, requiring at the same time but one ploughing—all these circumstances unite to render clover an object of the highest consequence to these kingdoms, and cannot but amaze one to reflect that there are various parts of them where it is yet unknown." Since Young's 'Tours' were published, clover has been introduced into numerous places where it was then, as he says, unknown; but even now it is not known, or at least not cultivated, in many local districts of our island. Young mentions a

* 'Farmer's Boy.'

farmer who "tried the application of clover in soiling horses, and two acres kept six during nineteen weeks, or three per acre that time, which, at 2*s*. 6*d*., is 7*l*. 2*s*. 6*d*. Had the horses been pastured in the field," he remarks, "the six horses would have had nine acres." Again, another farmer makes an experiment, the result of which is thus stated:—"Seven acres of clover keeps twenty horses, seven cows, five calves, &c., seventeen weeks; the horses and cows at 2*s*. 6*d*. a week; the amount 9*l*. 2*s*. 1*d*. per acre." And he further remarks, that the same individual found "that five acres soiled, lasted as long as thirty in the field." The average of the abovementioned sums is 8*l*. 2*s*. 3½*d*. per acre, a return to the farmer, when rents were much lower than they are at present, certainly far beyond the profits yielded by lands in general, even under crops that require much expense in cultivating, while clover requires no expense but that of cutting and carting to the stable; therefore, upon the whole, the result seems exceedingly favourable. But in these instances, as well as those previously referred to in connection with lucerne, it should be borne in mind, that where experiments (and favourable ones, or they would not have been introduced in the way they have been) are introduced, they certainly ought ever to be received with caution. Vetches, or tares, as they are more generally called, have been much cultivated since the period that Young made his various 'Tours;' and their uses in soiling (as well as in early pasturage) have become almost general in many parts of the country. As an early green food for sheep, they are very valuable, and by eating them off, and folding the sheep upon them during this month, many of the farmers upon a single furrow sow late crops of barley, which commonly answer exceedingly well. Soiling answers very well for milch cows where pasturage is scanty, and fat stock is stabled during the summer; but without the aid of oil-cake or meal, the cattle thus stabled seldom attain a sufficient degree of fatness. They are, therefore, commonly pastured abroad during the summer season, where, if they do not consume a larger quantity of food, they at least have a greater choice and variety, since they are at liberty to make their own selection, and on the whole commonly thrive better. There is one advantage in soiling that seems universally admitted, the manure produced in the stable being of considerably more value than when dropped promiscuously over the fields and pastures where the stock is turned out to roam at large. Where the farmer has an abundant supply of straw or bedding for littering his stock that is stabled during the summer, the advantage of this system will be greatly enhanced, for, upon every sort of farm stable manure is always a valuable article.

Respecting the way in which manures in general act upon the soil, or rather upon the crops, even at the present day, there are many conflicting opinions, and the matter still appears but imperfectly understood. Many men, eminent in science, amongst whom the name of Davy stands conspicuous, have applied a chemical knowledge to agricultural affairs, with a view of reducing the husbandman's art to a more regular and certain system. But notwithstanding the enlightened and enlarged views of a number of individuals connected with agricultural interests, the great bulk of operative farmers have been backward in availing themselves of the assistance afforded by science and experiment. Some improvements have, however, become general; and as regards manures, the introduction of bone-dust has effected the most beneficial results in almost every farming district. The dung of various animals, lime, marl, chalk, gypsum, ashes, and a few other substances, or composts formed by mixing one or more of them with clay, peat-earth, loam, or some other substance, constituted nearly the whole catalogue of manures fifty or sixty years ago. And although much less has been effected than we may have hoped for, in our regular Price Currents of the present day we find long lists of manures advertised in the ordinary way, many of which, to the last generation of farmers, were totally unknown. The subjoined list we copy from 'The Mark-Lane Express' of a recent date:—

Manures.	*s*.	*d*.	
Bone dust . . .	21	0	per quarter
do. ½-inch . .	20	0	do.
Rape dust . . .	135	0	per ton
Rags	90	0	do.
Graves . . .	110	0	do.
Gypsum . . .	60	0	do.
Carbon . . .	12	6	per quarter
Soap ashes . . .	10	0	per ton
Artificial manure . .	12	0	per quarter
Patent disinfected .	13	6	do.
Nitrate of soda . .	19	0	per cwt.

Besides these manures there are sundry other substances which may be advantageously applied to particular soils and crops; and it may be observed as somewhat remarkable that soot should be omitted in the regular list of manures connected with our great metropolis, for, as most farmers know, upon many crops it acts quickly, effectively, and beneficially. Salt, in small quantities, may sometimes be used beneficially, while in large quantities its application would prove utterly ruinous. Shell-fish,—and indeed fish of every description,—and in fact, all animal substances, make good manures. But the principal reason why bones and shell-fish are greatly preferred is, in consideration of their fertilising properties continuing to operate much longer than those substances that decay and become quickly decomposed, for pieces of bone, and the shells of mussels, oysters, &c., will remain several years in the soil before they wholly lose their effect, and become what the farmers call dead matter. Whereas many sorts of dung and sundry other manures decay and disappear in a single season; and although their good effects may not entirely cease at the period of their decay, much influence is rarely to be calculated upon afterwards.

It would exceed our limits were we to attempt a practical analysis of the various sorts of substances employed as manures, and give a brief exposition of their peculiar effects upon soils and crops. Upon the subject of manures, the author of the 'Complete Farmer' observes as follows:—"Manures are intended either to repair the decay of exhausted worn-out lands, or to cure the defects of other soils, which are as various in their qualities as the manures used to ameliorate and restore them. Some lands are too cold, moist, and heavy, whilst others are too light and dry. To answer this, some dungs are hot and light, as that of horses, sheep, pigeons, &c.; others, again, are fat and cooling, as that of oxen, cows, hogs, &c.; and as the remedies which are used must be contrary to the distempers they are to cure, so the dung of oxen, cows, and hogs should be applied to lean, dry, light earths, to make them fatter and closer, and hot and dry dungs to cold, moist, and heavy lands."

When the early part of the spring—as has been the case in the present season—is favourable for getting the seed into the ground, the farmer can then direct his attention to the preparation of his turnip lands and the ploughing up of his fallows. Attention to fallows is an irksome task to the farmer, for when a field requires ploughing in the autumn, again in this month or the beginning of next, and once or twice at least during the summer, it is a distant period to look forward to,—that of the second autumn,—as the earliest period at which he can possibly reap the slightest profit. Rents ought certainly to be moderate where the occupier has to wait two years before he reaps one crop, during which, or at least for the first year, the poor and greedy soil requires a considerable outlay of labour, and consequently of expense,

since, in addition to the necessary ploughings, there is the additional cost of manuring.

> "If April be dripping, then do I not hate
> (For him that hath little) his fallowing late;
> Else otherwise, fallowing timely is best,
> For saving of cattle, of plough, and the rest."*

But as regards fallowing, there probably is not any part of arable farming in which a greater change has taken place since the days of Tusser; for through the introduction of green crops, a better system of tillage, and superior manures, fallowing upon soils where green crops can be raised is nearly exploded. However, upon poor clayey soils, it is still necessarily resorted to, for not only by a summer fallow are the weeds eradicated, but the soil, by frequent stirrings, is loosened and ameliorated. Formerly, fallowing once in two or three years was looked upon as a matter of course, and even now we find that the custom is not wholly exploded from many parts of the country, where a different management would certainly add greatly to the farmer's profits. Young, in his 'Farming Tours' through the kingdom, very justly remarks to the following effect,—that in most places where the very worst management continued to exist among the farmers, nothing but raising their rents would produce the desired results. In many cases this advice was adopted by the landlords, and the consequences generally were just what Young had predicted; for such of the tenants as had not been able to provide for the rent-day when rents were low, after the rents were raised very considerably found themselves under the absolute necessity of departing from their old and unprofitable system of conducting their affairs, and had to attempt many things that they had hitherto considered an innovation upon old customs. In a great majority of cases, instead of farmers being ruined by an increase of rent, their dormant energies were called into action, and a contrary effect was the consequence, save amongst the slothful and obstinate.

Since we consider fallowing certain kinds of soil still an object of some consideration among agriculturists, we will introduce the opinions of two or three writers on husbandry, at a period when the *new* husbandry was not so generally practised. The author of the 'Complete Farmer' observes, "If the farmer finds that one summer's fallow does not entirely answer the purpose of loosening and dividing the earth, it is his interest to continue it with another. Tull," he remarks, "confirms this, by instancing a poor man, whom necessity compelled to take this method, because he could not get seed for his ground after he had tilled it the first year. The consequence was, that his crop was worth more than the value of the land it grew upon." "Mr. Maxwell," he adds, "mentions another, who, from a like necessity, following the same course upon almost his whole farm, had such a crop as enabled him to pay many debts, and, by continuing the same practice, came in a few years to be in a condition to purchase the farm."

After the first and second ploughings, that is, after the ground has been broken up in the autumn and ploughed again in the spring, it would be useless to suggest the number of ploughings that should be given to fallow lands afterwards, or the precise dates at which they ought to take place; because these things will depend upon the nature of the soil, the character of the summer weather, and the kind of weeds that have to be eradicated. For as most summer fallows are intended for wheat (rye being now comparatively little cultivated), persons conversant with farming affairs will know that some kinds of soil may be reduced to too fine a state of pulverization by frequent ploughings, as well as suffered to remain too little subdued and broken.

It is during the latter part of the present month, or the beginning of May, that farmers and horticulturists who make the cultivation of the potato a feature in their labours, usually commence potato-planting, provided the weather has been favourable for getting the ground ready; for, like most other general crops, a week or two later or earlier ought to be less of a consideration with those who plant them, than a fit condition of the soil. In making this remark, an exception may exist where the old mode is still adopted, the custom generally prevailing in Ireland, which is commonly called "lazy-bed" planting.

The potato was first introduced into this country, from Virginia in America, about 200 years ago. National tastes are seldom acquired very rapidly, and for a long period after their introduction they were but in low repute, not being admitted at all to the tables of the wealthy, nor even much relished by the poorer classes, who, however, found it convenient to make use of them, particularly when corn happened to be scarce and dear. They have, however, by little and little, effected a thorough revolution in the national taste, for they are now as commonly found at the table of the peer as at that of the cottager. They early gained a footing in Ireland; and so materially does the sustenance of the Irish peasantry depend upon this vegetable at the present day, that a more dire calamity could hardly befal them than a failure in the potato-crop.

Mention has already been made of the lazy-bed fashion of cultivating the potato, a short explanation of which we now give. A piece of ground having been selected for this purpose (where the parties possess sufficient land to admit of making a choice), the green sward is commonly pared off. The bed, or space to be planted upon, is then spread with stable or other manure, upon which the potato-sets (small potatoes, or larger ones cut into pieces) are placed, at six, eight, or ten inches asunder; and then they are first covered with the sods that had been pared off the surface, the grassy side downwards. After this trenches are dug on each side the bed, which usually is from four to six feet wide, and the soil, and often a portion of the subsoil, is dug up (no easy task in hard ground), and equally distributed over the bed to the depth of three or four inches. In one respect the soil, or even the subsoil, which is procured at a considerable depth below the roots of the grass, answers a very good purpose; for it yields no weeds itself, and serves to prevent the grass springing up from the edges of the sods, or the weeds that may have been deposited in the manure. When the trenches on each side of the bed have been cleared of the soil, which should be spread evenly over the bed, the work is considered finished; and nothing afterwards is done to the crop, neither hoeing nor weeding being considered necessary. Potatoes grow best, and are of the best quality, where the soil is light and dry; but they may be planted, lazy-bed fashion, upon moist or even wet soils, since the deep trenches drain the narrow beds thoroughly. Three-pronged forks with flat tines are generally used in digging up the crops of potatoes planted in this way, and although the produce is seldom very large, 200 bushels on the acre is no extraordinary crop.

But the most general mode of planting potatoes, where they are grown in large quantities, is in rows or drills, the plough being employed in preparing the ground, opening the furrows for the reception of the manure and potato-sets, in covering them up when planted, in hoeing and earthing them up into ridges, and finally in ploughing up the crop at the season of gathering them in. The rows or ridges are commonly from two and a half to three feet apart, and in some instances the potato-sets or plants are deposited beneath the manure, but more generally upon it. However, upon this point considerable diversity of opinion still exists, and controversies are frequently entered into respecting it. When the manure and the sets of potatoes have been placed in the furrows

* Tusser, 'April's Husbandry.'

formed by the plough (a double mould-board one being often employed), the plough then divides the ridges, turning the soil both ways, and thus covers up the plants or sets. During the summer they are kept clear of weeds by horse or hand hoeing; and when the stalks become pretty well grown, the earth is well ridged up against them, by which means the crop is commonly much increased. In the season of gathering them, the plough passes along the ridges, rooting up the crop as it moves along, the requisite number of gatherers following after with baskets. When all have been collected that were visible to the persons employed as gatherers, the ground is harrowed, a few stragglers are obtained, and thus ends the potato-harvest.

In the west of England, as well as in the vicinity of many of our larger towns and cities, the farmers and market-gardeners plant their potatoes in very narrow rows, and ridge them up with hoes, cultivating them wholly by hand labour, and often produce very large crops. Sometimes we see them planted in what are called hills, the operation being performed thus:—Shallow holes, three or four feet apart, are dug with hoes (the ground having been ploughed and harrowed), in each of which four or five sets are placed, with or without manure, when a moderate covering of earth is drawn over them by the same implement. When they have shot up a few inches above the surface they are hand-hoed, and when the stalks are about a foot high the earth is hoed up towards them, and a second time during the summer, by which means hills are formed, and hence the name of this method of planting. A good deal of labour is required, but to commence the operation does not require the soil being in fine tilth, or quite clear of weeds, for the frequent hand-hoeing keeps everything under subjection. This mode of planting is generally adopted in North America.

With regard to the best way of growing this valuable vegetable there are still various opinions. Some persons recommend planting large potatoes whole; others prefer planting only the smaller ones, such as are not marketable, and therefore of less value. The general (and best method) is to cut the larger ones into three, four, or five sets or parts each, taking care that each set contains one or more eyes or buds. Others again make use of a small implement invented for the express purpose of scooping out the eye or bud with a little of the potato attached to it, which eyes or buds are planted instead of the whole or quartered potatoes; by which means the principal part of the potato is saved to be applied to domestic or other purposes. From the time the young plants first appear above ground, until a natural decay takes place as the roots advance towards maturity, the potato-stems are at all times very susceptible of frost; hence it seldom answers to plant them on an extensive scale so early in spring as to endanger their being cut off or seriously injured by late frosts; neither does very late planting succeed, for late-planted potatoes are of an inferior quality, and are liable to be injured by early autumnal frosts.

Though a light sandy loam is the most favourable soil for the growing of potatoes of a good quality, there is scarcely a cottage in the kingdom, with a garden or small plot of ground attached to it, no matter of what kind or quality the soil may be, where we do not find this vegetable cultivated. Even in the bogs of Ireland, they are commonly planted; and there is not a district of country anywhere, even where the soil is a tenacious clay, that we do not find the culture of potatoes more or less attended to by the farmers.

The different varieties of this vegetable are exceedingly numerous, and varying very materially, not only in colour and shape, but likewise in quality and flavour. Some are of so early a sort that they arrive at maturity in one half the time that others do; others are of good quality, but not productive, and therefore only used at table; whereas other sorts yield an abundant product, but are so inferior in quality that they are given to hogs and farm stock. The potato does not generally ripen its seed in our climate; though a few sorts, in favourable seasons, bring their apples to maturity. By preserving and planting the seed, new varieties are produced; but as in the case of planting the seeds of apples or pears, so it is with potatoes, for out of a great number of new varieties, very few are produced worth cultivating.

The cultivation of timber may not appear to come immediately under what is familiarly understood by the term farming; and yet the growing of timber, of sundry sorts and sizes, is as necessary for the well-being of the community as the cultivation of the potato, or even of corn, which is accounted the staff of life. Tenant farmers, however, except in particular districts, where the country is rough and broken, and consequently unfit for tillage, seldom have much to do with planting, or with the management of woods and plantations; the landlords generally, where they are extensive, retaining them in their own hands, and placing them under the superintendence of persons appointed to that especial object, under the name of wood-bailiff, wood-reeve, or some other local appellative. Coppice-woods are sometimes rented by tenants that enjoy pretty long leases, the coppices usually occupying the roughest parts of the farm. In most cases it would be unwise and unprofitable to convert lands which could be grazed or cultivated into woods and plantations; but experience has proved, in many cases, that not only soils of an inferior quality, but even such as are calculated for grain and grass, may be profitably converted into plantations of various kinds of timber. The chief reason why we grow so little timber, and consequently have so much to import from foreign countries, is the period that necessarily must elapse after planting before any income can be derived. In speaking of cutting down coppice-woods for hop-poles, &c., Tusser says:—

> "First see it well fenced, ere hewers begin,
> Then see it well stadled without and within;
> Thus being preserved, and husbandly done,
> Shall soon raise profit to thee and thy son.
> Leave growing for stadles the likest and best,
> Though seller and buyer dispatched the rest.
> In bushes, in hedge-row, in grove, and in wood,
> This lesson observed, is needful and good."

In reference to the subjoined quotation, Dr. Mavor has the following remark:—"There are several obvious advantages attending the fencing of woodlands before felling. 'To stadle woods,' is to leave a sufficient number of thriving young trees, in order to replenish it (them?); and a superabundance is to be recommended, which may be thinned as they increase in size." In another place the same writer observes:—"The cutters of underwood are still to be cautioned against waste; and where it is sold standing, due reserves ought to be made of young timber at suitable distances; which may again be thinned at each subsequent fall, and fresh supplies left to supply their places. With proper management, coppices may be rendered of double their usual value. A good system has lately been adopted in the Duke of Marlborough's woods in Oxfordshire, of leaving a large number of promising stocks for the purpose just mentioned, which not only increases the beauty of the woodland scene, but proves a nursery for future timber. This circumstance would not have been so particularly mentioned, had not the prevailing practice in regard to woodlands been erroneous. A nobleman or gentleman who has extensive underwoods should employ his own people to cut, and then to sell."

In many parts of England and Scotland too, the owners of extensive tracts of waste lands, many of them commons recently enclosed, and particularly where such lands are hilly, and the soil scanty or of a poor quality, about the beginning of the present century turned their attention to

the improving of those wastes by planting them with various kinds of timber-trees, though the larch and Scotch firs were generally adopted. After some of these commons had been fenced into large allotments, the lands would not have rented for more than one, two, and three shillings an acre per annum, for they yielded so scanty and poor an herbage as barely to afford a few small hardy cattle or mountain sheep a precarious sustenance during the summer months; while during the greater portion of the year they were of real value. But supposing such lands had been rented for half-a-crown per acre during the last forty years, the amount of yearly rents, without calculating any interest, would be but 5*l.* sterling per acre. Were we to compare this sum with the value of the timber now growing upon most of those lands that have been planted, the advantage in favour of planting would be very great indeed; since most kinds of trees, but particularly the larch, spruce, and Scotch fir, have thriven much better than the most sanguine had either hoped or expected. Some expense was necessarily incurred at the time of planting, and occasionally for a few years afterwards in bestowing a little care and attention upon the young plantations; but by the time they were 15 or 20 years old, they began to yield some profit by the sale of the cuttings and thinnings that became necessary; and this has continued the case up to the present period. Many writers have tried to convince the owners of estates, or occupiers in the possession of long and unrestricted leases, of the immense advantages to be derived from planting their lands, or certain portions of them, with forest trees the best adapted to the soil and situation; but with what little success must be obvious to those who have taken the trouble to enter upon and investigate the subject. A few extracts from Young's 'Tours through most of the Counties in England' may throw some light upon this subject, and assist in bearing out the opinion already expressed in favour of planting. It may be as well to remark, before making these quotations, that at the time when Young published the results of his observations upon the general agriculture of the country, that both rents and the prices of all sorts of timber were much lower than they are at present, both having advanced in a nearly similar proportion.

The following experiments were made on the estate of Wm. Mitford, Esq., of Gilbury, on the confines of the New Forest:—"Cedars of Lebanon, silver firs, spruce firs, pinasters,—of 40 years' growth; average value 15*s.* 5*d.* each tree; number of trees on the acre 1210; total value 932*l.* 14*s.* Deduct for 40 years' rent and sundry expenses 28*l.* 10*s.*,—leaving a balance of 904*l.* 4*s.*; or at the rate of 22*l.* 11*s.* per acre, per annum." The writer then remarks—"The profit is surprisingly great, and exceeding anything that husbandry can produce. To reap above 20*l.* per acre, from the first day of planting—exclusive of thinnings, is a profit that proves how fine a resource landlords have for raising large sums of money, who can wait such a period for the return. But had these trees been cut at 20, 25, or 30 years, there can be no doubt but the profit would have been very great, though not so high as (at) 40 years. The value of the fee-simple of the land, soon after planting, bears no proportion to that of the timber on it. Is not this, therefore, a ready way to double, treble, or quadruple estates?"

"In another plantation, the growth of which is 17 years, and the trees are 7 feet square (apart)—average 1*s.* 3*d.*,—and there being 888 trees on the acre, the value of the whole is 55*l.* 10*s.* Various expenses, and rent for 17 years to be deducted, 9*l.* 12*s.*; profit 45*l.* 18*s.*,—or 2*l.* 14*s.* per annum, per acre. Here we see an instance of making 2*l.* 14*s.* per acre, per annum, from the first planting of poor land, at 6*s.* an acre: and I should remark that this plantation is on a hill and exposed to the south-west, which wind here blows with a fury that none can exceed, as all the trees in the country bear ample testimony, by turning their blasted heads from it. No husbandry will with so little, or rather with no trouble, hazard, or expense, equal this profit on such poor land. And it is made in the term of 17 years; which admits of so many men to plant, and expect themselves to reap the profit."

Many more experiments upon planting appear to have been made by the same gentleman, which the author of the 'Farmer's Tour' introduces into his work; but instead of entering into any particulars, for the sake of brevity we will only transcribe their profits generally, concluding with a few remarks that the subject seems imperatively to call for:—

	£	*s.*	
Growth 40 years .	22	11	per Acre, per Annum.
„ 45 .	11	10	„ „
„ 17 .	2	14	„ „
„ 30 .	19	18	„ „
„ 34 .	6	11	„ „
„ 29 .	8	7	„ „
„ 30 .	9	16	„ „
„ 19 .	16	10	„ „
„ 48 .	16	10	„ „

Averages taken from the above:—

	£	*s.*	*d.*	
From 34 to 45 years growth	13	10	8	per Acre, per An.
„ 29 to 30 „	11	4	0	„ „
„ 17 to 19 „	9	16	0	„ „

It is by no means our intention to attach discredit to the statements and calculations introduced by Young in his various 'Tours,' many of which are evidently not his own; but we think it must be admitted, that he, like many other writers upon agriculture, has occasionally allowed his feelings to lead his judgment into error: for when treating of matters and subjects that he would wish to recommend to his readers, entertaining a consciousness of their merits and general utility, the calculations introduced, although by no means intended to deceive, will not in all cases bear a strict scrutiny. Indeed, experimental farming is seldom conducted fairly and honestly, particularly where the experiments are upon a limited scale,—for either a greater amount of labour and attention is devoted to them, than what is bestowed upon crops in the ordinary way,—or the soil selected is of a superior quality, and better suited to the purpose to which it is devoted, or else situation or some other direct or indirect circumstance is in their favour; since few persons enter upon a series of experiments free from a previous bias, but entertain a desire to prove or disprove the theories and opinions that have already been published or expressed.

Admitting the gentleman's experiments upon planting already quoted to be honestly detailed, it does not appear that any difference is taken into the calculation in consideration of receiving a yearly income or receiving nothing whatever until the expiration of thirty or forty years. We find 3*l.* allowed at the very commencement as the expenses per acre for plants, planting, &c., and this sum is carried to the general account at the expiration of 45 years, without one penny of interest; whereas the proper way to have treated the subject would have been to have allowed compound interest upon this sum and all other monies that would have been received during any intervening period. Now as money invested at compound interest at 5 per cent. per annum doubles the principal in something more than 14 years—at the end of 45 years, calculating the interest as above, instead of a nominal 3*l.*, we should have 3 + 3 = 6 at the end of 14 or 15 years; then 6 + 6 = 12 at the end of 28 or 30 years; and 12 + 12 = 24 at the end of about 43 or 44 years: instead of 3*l.* as entered in the calculation quoted. In addition to this there would also be a considerable increase on the amount of rents, calculating interest in the same way,

and instead of allowing 13*l.* 10*s.* for 45 years' rents at 6*s.* per acre, per annum, the rents would amount to almost 60*l.* This undoubtedly is a great difference from the sums we find in the account quoted; and yet, after all, the profits upon most of the experiments would still be very considerable, though much less than they are made to appear; so that there can be little doubt of the general success of judicious planting where persons possess the means of waiting until the plantations arrive at a profitable state.

There is one branch of stock-farming, and a very interesting and important one too, that we have not yet alluded to in our Supplemental articles,—we refer to the breeding and raising of horses. It may be true that this is not considered so distinct and regular a branch of farming as some others; and hence in treatises connected with our subject, it is not so commonly spoken of, but reserved for other publications; but there can be no doubt of the importance of the subject, when we consider the value of the horse, and that it is estimated the United Kingdom contains above one million and a half. It can hardly therefore be objected to our devoting a limited space to this branch of farming, particularly since this is the season of the year when many brood mares produce their foals.

Long before much competition existed, or much emulation was excited, in the improvement of the breeds of cattle and sheep, at least to any considerable extent, the reverse was the case as regarded horses. Not, however, among the great body of persons of which the husbandry classes were composed; but by such as could afford to support equipages and equestrian pomp and parade. As the taste increased for those national recreations and amusements, the race-course and the chase, neither pains nor expense were spared in improving the breeds of horses best adapted for those purposes. Numerous importations from countries the most noted for their breeds of horses, namely, Arabia, Spain, and the Barbary states, took place to promote the desired object; and so persevering and successful have been the efforts of those who felt deeply interested in the matter, that at the present period there seems little doubt that England possesses a more valuable breed of horses than any other country in Christendom. It might be a difficult matter to arrive at the actual value of our first-rate thorough-bred horses, since so much depends upon circumstances of a contingent nature; but it may be stated as neither very rare nor uncommon occurrences, that blood-horses have been sold for 3000, 4000, or 5000 guineas each. Such prices, however, are commanded by those only that can boast of eminent pedigrees, and that have proved their superior qualities on the race-course; since the best hunters, and saddle and carriage horses, although frequently of considerable value, never command prices approaching to those above stated. It is a somewhat curious fact,—that although we have found it impossible to improve the blood of the finest imported Arab horses,—by assiduous care, and superior management, our stud-breeders have contrived to increase the size and power, without injuring the shape and symmetry, an object that has been considered of the highest importance.

While thorough-bred horses, and crosses therewith, have continued to attract the attention of noblemen and gentlemen connected with the turf or with hunting, the agricultural interest has not been unmindful of the improvement of the various breeds and crosses that are found in different parts of the empire; and yet, in a majority of cases, the results have not been so favourable as many were led to expect; for if we compare the general improvement that has been effected in country stock horses, during the last half or three-quarters of a century, with what has taken place in other farm stock, both sheep and cattle, it will be found that the value of the horse has not advanced in anything approaching a corresponding degree.

It is not our intention to enter into the national or general history of this noble animal, nor to attempt to enumerate and classify the various breeds and crosses existing at present throughout the country, which are continually changing and intermixing with each other; it shall, therefore, only be observed, that we have some with coats almost as long and shaggy as the Greenland bear, while others are as sleek and smooth as the dormouse. Again, we find them varying greatly in size, from the small Shetland pony, which is scarcely larger than a good-sized ram, to the huge fen or dray horse, which is sometimes almost as large and powerful as a moderate-sized elephant.

Among our Saxon ancestors, and even at a much more recent period, oxen were solely used for agricultural purposes. We learn from Cæsar's 'Commentaries,' as well as from other writers of the same period, that when the Romans made themselves masters of Britain, the native inhabitants possessed great numbers of cattle, but comparatively neglected the plough, their food principally consisting of the flesh and milk of those animals. About the fifteenth and sixteenth centuries, horses began to be partially employed in the plough and the wain; but it was not until the latter part of the seventeenth and the beginning of the eighteenth centuries, that they became generally used in the plough in any part of the kingdom. Since the date of the latest period, horses have by no means wholly superseded oxen in many of the arable farm districts. The unimproved condition of the roads, no doubt, prolonged the use of oxen in the wain and the waggon; for we find that about the time when roads became generally improved, the introduction of lighter wheel-carriages took place, and along with them an increased use of horses. Even at the present day, much diversity of opinion exists upon the subject of employing oxen or horses in agriculture. It may be advanced in favour of employing oxen (without at all entering upon the general question), that they may be worked a few years and then fattened and sold to the butcher, without the original value of the animal being materially, if at all, reduced; whereas the farm-horse soon begins to lessen in value, and this deterioration continues from year to year, until he is worn out and becomes worth only the price of his hide and shoes.

Though the original breeds of cattle in this country have become so mixed and intermingled in every possible way, that it would be useless to attempt to define with any degree of certainty the stock from whence the cattle at present occupying any local district originally sprang; yet many writers limit the present prevailing distinctions to long-horns, short-horns, and middle-horns. But we frequently find cattle spoken of under distinct appellatives; such, for instance, are the Devonshire, Alderney, Hereford, Sussex, Lancashire, Teeswater, Ayrshire, Holderness, Galloway, Highland, and other breeds. Our present purpose is only to offer a few remarks on the uses of oxen in agriculture, and what breeds are the best adapted for being employed in this way.

The Devonshire oxen have long been considered as unrivalled in the yoke, since they possess some of those qualities most desirable in working cattle; among which may be mentioned great quickness of action, docility and goodness of temper, stoutness, and a truth and honesty of purpose when at work that many horse-teams cannot pretend to. "The principal objection to the Devonshire oxen is," says a modern writer,* "that they have not sufficient strength for tenacious clayey soils; they will, however, exert their strength to the utmost, and stand many a dead pull, which few horses could be induced or forced to attempt. They are uniformly worked in yokes, and not in collars. Four oxen, or six young steers, are the usual team employed in the plough." Vancouvre, in his 'Survey of Devonshire,' says "that it is a common

* W. Youatt

day's work on fallow land for four steers to plough two acres with a double-furrow plough."

The writer previously quoted,* in speaking of the Sussex oxen, says, "About the South Downs oxen are much employed, but not perhaps in an equal degree to horses. In the Weald of Sussex they have the greater share of the labour; and on a farm of 100 acres there is usually a horse and an ox team; on a larger farm there are more oxen." Again: "The coarser breed is always slow, and soon after six years old it can scarcely be worked at all with advantage. The lighter breed, the true Sussex of many a century, will step out as light and as fast, and will do almost as much work as any horse, and stand as many or more dead pulls." In speaking of their uncommon speed, he remarks, "Of the speed which some of them possess, proof was given when a Sussex ox ran four miles against time over the Lewes race-course, and accomplished the distance in sixteen minutes."

Since there appear to be no other sections of the country where oxen are more employed in agriculture than in the counties already alluded to, a reasonable inference may thence be drawn that there are no other breeds of cattle superior, if equal, for husbandry purposes, to the Devon and Sussex breeds. Our limits will not allow us to enter further upon this interesting subject, and we conclude with a quotation from the same author to whom we are indebted already for a few extracts; it refers to the Devonshire ox employed in the plough:—

"There is a peculiarity in driving the ox team which is very pleasing to the stranger, and the remembrance of which, connected with his early days, the native does not soon lose. A man and a boy attend each team; the boy chants that which can scarcely be regarded as any distinct tune, but which is a very pleasing succession of sounds, resembling the counter-tenor in the service of the cathedral. He sings away with unwearied lungs, as he trudges along, almost from morning to night, while every now and then the ploughman, as he directs the movement of the team, puts in his lower notes, but in perfect concord. When the traveller stops in one of the Devonshire valleys, and hears the simple music from the drivers of the ploughs on the slope of the hill on either side, he experiences a pleasure which the operation of husbandry could scarcely be supposed to be capable of affording. This chanting is said to animate the oxen somewhat in the same way as the musical bells that are so prevalent in the same county. Certainly the oxen move along with an agility that would be scarcely expected from cattle; and the team may be watched a long while without one harsh word being heard or the goad of the whip applied. The opponents of ox-husbandry should visit the valleys of North or South Devon, to see what this animal is capable of performing, and how he performs it."

* W. Youatt.

MONTHLY CALENDAR.—MAY—Fifth Month.

Day of the Month and Week.	Day of the Year.	Sundays and Remarkable Days.	Sun rises.	Eq. Time. Clock aft. Sun.	Sun sets.	Moon's Age.	Moon rises.	Moon sets.
			h. m.	m. s.	h. m.		h. m.	h. m.
1 F	122	*St. Philip and St. James.*	4 34	3 5	7 21	28·9	3m50	7a16
2 S	123	. . .	4 32	3 12	7 23	●	4 11	8 51
3 *Su*	124	2 *Sunday after Easter.*	4 30	3 19	7 24	1·5	4 41	10 22
4 M	125	. . .	4 28	3 25	7 26	2·5	5 26	11 37
5 Tu	126	. . .	4 26	3 30	7 28	3·5	6 28	morn.
6 W	127	. . .	4 25	3 35	7 29	4·5	7 47	0 32
7 Th	128	. . .	4 23	3 39	7 31	5·5	9 14	1 8
8 F	129	Half Quarter.	4 21	3 43	7 32	☽	10 38	1 33
9 S	130	. . .	4 20	3 47	7 34	7·5	11 59	1 51
10 *Su*	131	3 *Sunday after Easter.*	4 18	3 49	7 35	8·5	1a17	2 5
11 M	132	. . .	4 16	3 51	7 37	9·5	2 31	2 16
12 Tu	133	Easter term ends.	4 15	3 53	7 39	10·5	4 44	2 27
13 W	134	Old May Day.	4 13	3 54	7 40	11·5	4 57	2 38
14 Th	135	. . .	4 12	3 55	7 42	12·5	6 10	2 50
15 F	136	. . .	4 10	3 54	7 43	13·5	7 23	3 5
16 S	137	. . .	4 9	3 54	7 45	○	8 36	3 24
17 *Su*	138	4 *Sunday after Easter.*	4 7	3 53	7 46	15·5	9 43	3 50
18 M	139	. . .	4 6	3 51	7 47	16·5	10 41	4 26
19 Tu	140	. . .	4 4	3 48	7 49	17·5	11 27	5 13
20 W	141	. . .	4 3	3 46	7 50	18·5	morn.	6 13
21 Th	142	. . .	4 2	3 42	7 52	19·5	0 1	7 23
22 F	143	*Prss. Eliz. born 1770.*	4 1	3 38	7 53	20·5	0 26	8 37
23 S	144	. . .	3 59	3 34	7 54	21·5	0 45	9 54
24 *Su*	145	5 *Sun aft. East. Rogation*	3 58	3 28	7 56	☾	1 0	11 11
25 M	146	[*Sun. Q. Vict. b.* 1819	3 57	3 23	7 57	23·5	1 13	0a29
26 Tu	147	Trinity Term begins.	3 56	3 17	7 58	24·5	1 25	1 48
27 W	148	. . .	3 55	3 10	7 59	25·5	1 38	3 12
28 Th	149	*Ascen. Day. Holy Thurs.*	3 54	3 3	8 1	26·5	1 52	4 41
29 F	150	King Chas. II. restored.	3 53	2 55	8 2	27·5	2 11	6 14
30 S	151	. . .	3 52	2 47	8 3	28·5	2 35	7 47
31 *Su*	152	*Sunday after Ascen. Day.*	3 51	2 39	8 4	●	3 13	9 12

Meteorological Averages.

	Ins.
Barometer.	
Mean height	29·898
Highest	30·380
Lowest	29·160
Hygrometer.	°
Mean dew-point	46
Highest	62
Lowest	28
Mean dryness	7·9
Mean greatest do. of day	15·6
Greatest dryness	24
Thermometer.	
Mean temperature	54
Highest	70
Lowest	33
Radiation.	
Mean great. of Sun	30·5
Greatest power	57
Mean cold of terrest.	4·2
Greatest ditto	13
	Ins.
Mean qty. of rain	1·853
Mean of evap.	3·286

Table of the Winds.

	Days.	Dew-P.
N.	3	42°
N.E.	4	40 ·5
E.	4½	45 ·5
S.E.	4	50 ·5
S.	1	54
S.W.	6¼	49 ·5
W.	5¼	46 ·5
N.W.	3	41

SUNDAY LESSONS.

May			Morning.		
3	2 aftr	East.	Nb. 23, 24..	Mtt.	1
10	3	,,	Deut. 4..	,,	8
17	4	,,	,, 6..	,,	15
24	5	,,	,, 8..	,,	22
31	Sun. af. As.		,, 12..	Mrk.	1

			Evening.		
May	3	Numb.	25.....	Romans	2
,,	10	Deuter.	5.....	,,	9
,,	17	,,	7.....	,,	16
,,	24	,,	9.....1 Cor.		7
,,	31	,,	13.....	,,	14

THE MOON'S CHANGES.

New . . . 2d day, 0h. 6m. mo.
First Quart. 8th day, 2h. 50m. af.
Full . . . 16th day, 11h. 30m. mo.
Last Quart. 24th day, 1h. 24m. af.
New . . . 31st day 7h. 15m. mo.

Day of Mth.	Length of Day.	Day's increase	Day break.	Twil. ends.	Sun's Semi-di.
	h. m.	h. m.	h. m.	h. m.	
1	14 47	7 2	2 4	9 54	15′ 53″
6	15 4	7 7	1 45	10 9	15 52
11	15 21	7 19	1 25	10 31	15 51
16	15 36	7 36	1 1	10 56	15 50
21	15 50	7 51	0 28	11 36	15 49
26	16 2	8 5	No real Night.		15 48

*** The Office of the Society for the Diffusion of Useful Knowledge is at 59, Lincoln's Inn Fields.

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